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500 7590 03/30/2009

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 5400
SEATTLE, WA 98104

EXAMINER

TSAI, SHENG JEN

ART UNIT

PAPER NUMBER

2186

DATE MAILED: 03/30/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/923,727

08/06/2001

Randy Keith Lomnes

470039.401

1112

TITLE OF INVENTION: METHOD AND SYSTEM FOR AUTOMATICALLY PRESERVING PERSISTENT STORAGE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/30/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

500 7590 03/30/2009

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 5400
SEATTLE, WA 98104

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/923,727 08/06/2001 Randy Keith Lomnes 470039.401 1112

TITLE OF INVENTION: METHOD AND SYSTEM FOR AUTOMATICALLY PRESERVING PERSISTENT STORAGE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 06/30/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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TSAL, SHENG JEN 2186 711-163000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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09/923,727	08/06/2001	Randy Keith Lomnes	470039.401	1112
500	7590	03/30/2009	EXAMINER	
SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVE SUITE 5400 SEATTLE, WA 98104			TSAI, SHENG JEN	
			ART UNIT	PAPER NUMBER
			2186	
DATE MAILED: 03/30/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 552 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 552 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	09/923,727	LOMNES, RANDY KEITH	
	Examiner	Art Unit	
	SHENG-JEN TSAI	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/15/2009.
2. ☒ The allowed claim(s) is/are original claims 3-9,11,13-23,26,30-46,49,53-54,56-66,70-79,81,84-101.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>1/15/2009</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

/Sheng-Jen Tsai/
Primary Examiner, Art Unit 2186

DETAILED ACTION

1. This Office Action is taken in response to Applicants' Amendments and Remarks filed on January 15, 2009 regarding application 09/923,727 filed on August 6, 2001.
2. Claims 3-9, 11, 13-23, 26, 30-46, 49, 53-54, 56-66, 70-79, 81 and 84-101 are pending under consideration.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephone interview with Ellen M. Bierman (Reg. No. 38,079) on 03/12/2009.

Claims 3, 32, 54, 72, 79, 84 and 93 are to be amended as shown below:

5. **Claim 3 is now amended to be:**

3. (Currently Amended) A method in a computer system for automatically protecting data stored in a portion of a storage device having a designated protected space, the computer system having a designated unprotected space and a redirected space, comprising:

loading a software redirection driver into an input/output driver hierarchy loaded in a volatile memory of the computer system during power-up initialization, wherein the software redirection driver is an input/output driver; and

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under control of code of the loaded software redirection driver, redirecting input/output requests by:

intercepting from requesting code that is external to the loaded software redirection driver a request to modify a location in the protected space or a location in the unprotected space;

when the request is to modify a location in the unprotected space, initiating modification of the location in the unprotected space without redirection;

when the request is to modify a location in the protected space, determining a location in the redirected space that is associated with the location in the protected space; and

redirecting the intercepted request to modify the determined location in the redirected space instead of the location in the protected space;

in response to a ~~received~~ request to shutdown the computer system, disregarding the data in the redirected space;

after the disregarding of the data in the redirected space, intercepting from requesting code a request to read the location in the protected space; and in response to the intercepting of the request to read the location in the protected space, providing data from the location in the protected space instead of providing data from the redirected space, so that the data stored in the location in the protected space automatically remains unaltered when the computer system is restarted from a powered-down state.

6. Claim 32 is now amended to be:

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32. (Currently Amended) A computer-readable memory medium containing program code that controls a computer processor to protect data stored in a portion of a storage device having a designated protected space, the computer system having a designated unprotected space and a redirected space, by performing a method comprising:

loading a software redirection driver into an input/output driver hierarchy loaded in a volatile memory of the computer system during power-up initialization, wherein the software redirection driver is an input/output driver; and

under control of code of the loaded software redirection driver, redirecting input/output requests by:

intercepting from requesting code that is external to the loaded software redirection driver a request to modify a location in the protected space or a location in the unprotected space;

when the request is to modify a location in the unprotected space, initiating modification of the location in the unprotected space without redirection; and

when the request is to modify a location in the protected space,

determining a location in the redirected space that is associated with the location in the protected space; and

redirecting the intercepted request to modify the determined location in the redirected space instead of the location in the protected space,

in response to a ~~received~~ request to shutdown the computer system, disregarding the data in the redirected space;

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after the disregarding of the data in the redirected space, intercepting from requesting code a request to read the location in the protected space; and

in response to the intercepting of the request to read the location in the unprotected space, providing data from the location in the protected space instead of providing data from the redirected space, so that the data stored in the location in the protected space automatically remains unaltered when the computer system is restarted from a powered-down state.

7. Claim 54 is now amended to be:

54. (Currently Amended) A computer system for automatically protecting data stored in a portion of a storage device, comprising:

a protected space on the storage device for storing the protected data;

an unprotected space;

redirected storage space in the computer system designated for storing attempted modifications of the protected data; and

a software redirection driver that redirects input/output requests, loaded into an input/output driver hierarchy loaded in a volatile memory of the computer system when the system is booted from a powered-down state, wherein the software redirection driver is an input/output driver including code that, when executed, is configured to:

intercept from requesting code that is external to the software redirection driver a request to modify a location in the protected space or a location in the unprotected space;

when the request is to modify a location in the unprotected space, initiate modification of the location in the unprotected space without redirection;

when it is determined that the request is to modify a location in the protected space, redirect the request so that the request results in modifying a location in the redirected storage space instead of the location in the protected space;

in response to a ~~received~~ request to shutdown the computer system, disregarding the data in the redirected space;

after the disregarding of the data in the redirected storage space, intercepting from the requesting code a request to read the location in the protected space; and

in response to the intercepting of the request to read the location in the protected space, providing data from the location in the protected space instead of providing data from the redirected space, so that the location in the protected space automatically remains unaltered when the computer system is restarted from a powered-down state.

8. Claim 72 is now amended to be:

72. (Currently Amended) A method for protecting data in a storage device of a computer system having an operating system, a device driver, an unprotected space, and a storage device having a designated protected space, comprising:

loading a software redirection driver into a volatile memory of the computer system during power-up initialization;

installing the software redirection driver before the device driver in a calling sequence of the operating system, so that the operating system invokes the redirection driver in response to receiving a request to access the storage device;

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under control of the redirection driver,

intercepting from requesting code that is external to the redirection driver a request to modify a location referred to by a protected space redirection table or a location referred to by an unprotected space table;

when the request is to modify a location referred to by the unprotected space table, initiating modification of the location in the unprotected space without redirection; and

when the request is to modify a location referred to by the protected space redirection table, redirecting the request to modify a location in unused storage associated with the location referred to by the protected space redirection table, such that the data in the location in the protected space remains unaltered;

in response to a ~~received~~ request to shutdown the computer system, disregarding data in the location in the unused storage;

after the disregarding of the data in the location in the unused storage, intercepting from the requesting code a request to read the location in the protected space; and

in response to the intercepting of the request to read the location in the protected space, providing data from the location in protected space instead of providing data from the location in the unused storage, so that the data stored in the location in the protected space automatically remains unaltered when the computer system is restarted from a powered-down state.

9. Claim 79 is now amended to be:

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79. (Currently Amended) A storage access redirection system for protecting data in designated locations on a storage device in a computer system, comprising:

an available space table;

a protected space redirection table that is used to designate protected locations on the storage device that are to be protected from modification;

an unprotected space table that is used to designate unprotected locations on the storage device that can be altered, wherein the available space table, the protected space redirection table, and the unprotected space table are separate and distinct from each other; and

a software redirection driver, installed in a volatile memory of the computer system upon power-up initialization, that when executed, is configured to:

automatically intercept a request to modify one of the designated protected locations or to modify a location referred to by the unprotected space table;

when the request is to modify a location referred to by the unprotected space table, disregard the request so that data in the location referred to by the unprotected space table is modified according to the request; ~~and~~

when the request is to modify one of the designated protected locations, use the protected space redirection table to determine whether the designated protected location has been previously redirected;

when it is determined that the designated protected location has been previously redirected,

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determine an associated redirected location referred to by the protected space redirection table; and

redirect the request to the associated redirected location; and

when it is determined that the designated protected location has not been previously redirected,

allocate a new redirected location based on the available space table;

redirect the request to modify one of the designated protected locations to the new redirected location;

record a reference to the new redirected location in the protected space redirection table; and

remove the reference to the new redirected location from the available space table; and

in response to a request to shutdown the computer system, disregarding the data in the protected space redirection table;

after the disregarding of the data in the protected space redirection table,
intercepting from requesting code a request to read the one of the designated protected locations on the storage device; and

in response to the intercepting of the request to read the one of the designated locations, providing data from the one of the designated protected locations on the storage device instead of providing data from a location referred to by the protected space redirection table, so that the data stored in the one of the designated protected

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locations on the storage device automatically remains unaltered when the computer system is restarted from a powered-down state.

10. Claim 84 is now amended to be:

84. (Currently Amended) A method in a computer system for automatically protecting data stored in a portion of a storage device having a designated protected space, the computer system having a designated unprotected space and a redirected space, comprising:

loading a software redirection driver into an input/output driver hierarchy loaded in a volatile memory of the computer system during power-up initialization, wherein the software redirection driver is an input/output driver; and

under control of code of the loaded software redirection driver, redirecting input/output requests by:

intercepting from requesting code that is external to the loaded software redirection driver a request to modify a location in protected space referred to by a protected space redirection table or a location in unprotected space referred to by an unprotected space table;

when the request is to modify a location in unprotected space referred to by the unprotected space table, initiating modification of the location in the unprotected space without redirection;

when the request is to modify a location in protected space referred to by the protected space redirection table,

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determining, based on the protected space redirection table, a location in the redirected space that is mapped to the location in the protected space; and

redirecting the intercepted request to modify the determined location in the redirected space instead of the location in the protected space;

in response to a request to shutdown the computer system, disregarding the data in the redirected space;

after the disregarding of the data in the redirected space, intercepting from requesting code a request to read the location in the protected space; and

in response to the intercepting of the request to read the location in the protected space, providing data from the location in the protected space instead of providing data from the redirected space, so that the data stored in the location in the protected space automatically remains unaltered when the computer system is restarted from a powered-down state.

11. Claim 93 is now amended to be:

93. (Currently Amended) A computer-readable memory medium containing program code that controls a computer processor to protect data stored in a portion of a storage device having a designated protected space, the computer system having a designated unprotected space and a redirected space, by performing a method comprising:

loading a software redirection driver into an input/output driver hierarchy loaded in a volatile memory of the computer system during power-up initialization, wherein the software redirection driver is an input/output driver; and

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under control of code of the loaded software redirection driver, redirecting input/output requests by:

intercepting from requesting code that is external to the loaded software redirection driver a request to modify a location in protected space referred to by a protected space redirection table or a location in unprotected space referred to by an unprotected space table;

when the request is to modify a location in unprotected space referred to by the unprotected space table, initiating modification of the location in the unprotected space without redirection;

when the request is to modify a location in protected space referred to by the protected space redirection table,

determining, based on the protected space redirection table, a location in the redirected space that is mapped to the location in the protected space; and

redirecting the intercepted request to modify the determined location in the redirected space instead of the location in the protected space;

in response to a request to shutdown the computer system, disregarding the data in the redirected space;

after the disregarding of the data in the redirected space, intercepting from requesting code a request to read the location in the protected space; and

in response to the intercepting of the request to read the location in the protected space, providing data from the location in the protected space instead of providing data from the redirected space, so that the data stored in the location in the protected space

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automatically remains unaltered when the computer system is restarted from a powered-down state.

Allowable Subject Matter

12. Claims 3-9, 11, 13-23, 26, 30-46, 49, 53-54, 56-66, 70-79, 81 and 84-101 are allowed.

Conclusion

13. Claims 3-9, 11, 13-23, 26, 30-46, 49, 53-54, 56-66, 70-79, 81 and 84-101 are allowed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheng-Jen Tsai whose telephone number is 571-272-4244. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/923,727

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/Sheng-Jen Tsai/

Primary Examiner, Art Unit 2186

March 25, 2009